Hue (1978-83) note that pied falconets can be seen in groups of 5 or 6, and this together with our observation of a group at Deban in February suggests that pied falconets may also sometimes breed cooperatively. Clearly this species, regarded as 'Vulnerable' by BirdLife International (Collar *et al.* 1994), requires considerable further study.

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13. UNUSUAL ASSOCIATION BETWEEN A PAIR OF SARUS CRANES *GRUS ANTIGONE* AND SIBERIAN CRANE *GRUS LEUCOGERANUS* AT KEOLADEO NATIONAL PARK, BHARATPUR

A strong bond was observed between a pair of sarus cranes *Grus antigone* Linn. and a female Siberian crane *Grus leucogeranus* Pallas during 1997-98. It was first observed in September 1997, a few days after the two captive bred Siberian cranes left the Park and one died. Four captive bred Siberian cranes had been released in the Park during February 1997, as part of an International effort to augment the dwindling population of Siberian cranes.

The lone female Siberian crane, Baharami, foraged in block F in the northeast region of the Park and a pair of sarus was regularly seen in the same block. Baharami gradually started feeding with the sarus without evoking any agonistic reaction from them, and by the second week of September she had also started roosting with them. They would roost just a few feet away from each other. The cranes vocalised, displayed, foraged and roosted together as a close-knit flock by early October. The sarus cranes would threat-display if their conspecifics attacked Baharami and would chase them away. They would even attack the wild Siberians if they tried chasing Baharami. An approaching dog or man would elicit loud unison calls and the two sarus cranes would alert each other. Most of the time, at least one of the three cranes would look around while

feeding, probably keeping watch for predators. Baharami would also show agonistic behaviour on the approach of perceived threat, and would threat display with widespread wings and stabbing action. She would try to come between the sarus cranes and the threat, and would shield them with spread wings. Baharami continued to remain in the company of the sarus even after the two released Siberian cranes — Annber and Alkonost — had come back to the Park during December 1998. She continued to display, vocalise and fly with the sarus. Baharami would even go for some time into the neighbouring wheat field with the sarus and would attempt to feed. She would, however, come back and spend time in a lake in the Park near the Park wall. She would respond to their unison call and would join them as soon as they came back. Probably due to her food preference, she did not forage in the wheat fields. Siberians are known to feed exclusively within the jheels and rarely leave water (Sauey 1985).

After February, the sarus started going outside the Park to forage in the agricultural fields. Initially, Baharami would go with them, but she stopped joining them after some time. However, she would immediately go towards them when they returned to the Park. This association continued till the last week of May 1998, when the sarus cranes left the Park due to adverse ecological conditions.

Usually, the sarus does not tolerate the presence of Siberians and chases them away. Sauey (1985) found the presence of sarus to be the most serious disturbance factor, second only to human presence. During the present study, similar observations were recorded, except for this pair of sarus. Sauey (1985) states that the interactions are usually intense where the feeding territory of Siberian and breeding territory of sarus overlap. However, some unattached sarus roost in a flock with Siberians, as there is no clash of interest.

Probably, the pair of sarus were young, still unmated and had not established territory. They did not breed in the following breeding season of 1998 and were observed nesting unsuccessfully during 1999. So, they formed a flock with Baharami, who was still a young two-year-old female. Young and females are usually more tolerated by congenerics (Sauey 1985).

Close association between birds of either sex has been reported between congenerics, when they flock together (Viess 1982), but we have not come across any report of a pair of a species developing a close association with a congeneric individual. Variation from normal behaviour is expected from captive-bred individuals, but the sarus were wild. Hybrids have been recorded between congenerics during a release programme (Brown 1992), but they are considered the undesirable fallout of experimental conditions.

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